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## Experiences of Discrimination and HIV Risk Among Men Who Have Sex With Men in New York City

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### Abstract

The extent of gay-related discrimination in New York City (NYC) and the demographic and behavioral factors correlated with experiences of gay-related discrimination are not well understood. The Centers for Disease Control and Prevention–sponsored National HIV Behavioral Surveillance System, a cross-sectional study, was conducted in NYC in 2011. Men who have sex with men were venue-sampled, interviewed, and offered HIV testing. Frequencies of types of gay-related discrimination experienced in the past 12 months were calculated. Associations between types of discrimination and demographic and HIV risk variables were examined through the estimation of prevalence ratios (PRs) and 95% confidence intervals (CIs). More than half (53.2%) of all study participants reported having experienced any gay-related discrimination in the past 12 months; 45.0% reported that they had been called names or insulted; 23.6% reported receiving poorer services than other people in restaurants, stores, other businesses, or agencies; 22.0% reported being treated unfairly at work or school; 15.1% reported being physically attacked or injured; and 6.7% reported being denied or given lower quality health care. HIV-positive status (adjusted PR [aPR] = 2.9; 95% CI = 1.5, 5.6) and drug use in the past 12 months (aPR = 0.3; 95% CI = 0.1, 0.7) were independently associated with reports of having been denied or given lower quality health care. High rates of reported gay-related discrimination suggest that greater efforts are needed to reduce gay-related discrimination in affected communities. Future research is needed to better understand the extent of gay-related discrimination in NYC, particularly with regard to the relationship between HIV status and health care access.

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Authors' Note

The contents of this article are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

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## Keywords

gay health issues; homophobia; marginalization; social determinants of health

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## Introduction

Previous research has identified that perceived discrimination is associated with negative physical and mental health (Landrine & Klonoff, 1996; Mays & Cochran, 2001). In general, discrimination has previously been reported to be associated with nonparticipation in health promotion behaviors (Pascoe & Smart Richman, 2009). Research suggests that discrimination against men who have sex with men (MSM) may increase their risk for HIV infection (Ayala, Bingham, Kim, Wheeler, & Millett, 2012). Persistent discrimination could lead to “internalized homophobia” among MSM, which could reduce the effectiveness of HIV prevention services (Huebner, Davis, Nemeroff, & Aiken, 2002); internalized homophobia has also been linked to high-risk sexual behavior and drug use (Shoptaw et al., 2009). Experiences of gay-related discrimination and stigma may heighten the risk of HIV infection through mediators such as substance abuse and/or increased risky sexual behavior (Cabaj, 2000; Diaz, Ayala, & Bein, 2004; Lelutiu-Weinberger et al., 2013) or may lead to behaviors to avoid discrimination, which could be a barrier to HIV prevention (Bernstein et al., 2008).

Most of the published literature focuses on the general concept of discrimination rather than the specific types of discrimination experienced by MSM. It is not known how the prevalence of specific types of discrimination vary among subpopulations of MSM or how different types of discrimination are associated with HIV risk behaviors. New York City (NYC) has one of the largest populations of MSM in the United States with an estimated 105,000 MSM (New York City Department of Health and Mental Hygiene, 2011). The current study is an exploratory study to estimate the prevalence of gay-related discrimination in NYC and assess potential demographic and behavioral factors correlated with experiences of gay-related discrimination among a diverse sample of MSM in NYC.

## Method

### Sampling and Recruitment

Participants were recruited to participate in the Centers for Disease Control and Prevention (CDC)–sponsored National HIV Behavioral Surveillance (NHBS) study of MSM in NYC in 2011. NHBS is an ongoing national, cross-sectional study sponsored by the CDC that monitors HIV risk behaviors, testing history, exposure to and use of HIV prevention services, and HIV prevalence among MSM, injection drug users (IDU), and high-risk heterosexuals in 3-year cycles (Gallagher, Sullivan, Lansky, & Onorato, 2007; Lansky, Sullivan, Gallagher, & Fleming, 2007). NHBS is conducted in collaboration with the CDC by local public health departments, universities, and other collaborators. NHBS uses venue-based sampling, a quasi-probability study design that reduces the impact of selection bias to enumerate and recruit MSM participants (Gallagher et al., 2007). Venue-based sampling methods for NHBS have been described in detail elsewhere (MacKellar et al., 2007).

Recruitment venues were categorized as bars; cafes or restaurants; dance clubs; house ball events; fitness clubs or gyms; gay pride or similar events; social organizations; parks and beaches; retail businesses; street locations; raves, circuit parties, or similar events; sex establishments or environments; and other. The study team constructed a list of MSM-oriented social venues in NYC by reviewing publications, interviewing key informants, and conducting other ethnographic research. Venues were included if at least 50% of the venue population were adult MSM, as determined through observational and interview-based ethnography. Each venue's peak hours of operation, in standardized 4-hour time blocks, were also determined through this method. Throughout the study, the universe of potential MSM venues was updated as new venues opened and known venues closed or changed populations. All information on venues and peak time periods was entered into software designed by the CDC for NHBS that randomly selected venues and time periods for recruitment events.

There were 54 recruitment events conducted over 15 weeks from July through October 2011. At each recruitment event, field staff operating in a mobile van outside the venue enumerated all adult men who entered the venue (or crossed an imaginary line when no venue entrance existed). Enumerated men were sequentially and nonpreferentially approached by interviewers who described the study to them, and interested men were screened for eligibility. Eligible men who provided their informed consent were given a structured survey interview administered privately by trained interviewers and a voluntary HIV test. The eligibility criteria were male, 18 years of age, NYC residence, and English or Spanish comprehension. MSM sexual history was not an eligibility criterion, but men who did not report anal or oral sex with a man in the past 12 months were excluded from this analysis.

## Measures

The survey instrument was developed by the CDC in collaboration with local NHBS project sites. Interview data were collected on demographics, sexual and drug use behavior, and experiences of gay-related discrimination. For the current study, the variable for drug use in the past 12 months excludes marijuana use. Participants were asked (yes/no/don't know/refuse to answer) "during the past 12 months, have any of the following things happened to you because someone knew or assumed you were attracted to men": "called names or insulted;" "received poorer services than other people in restaurants, stores, other businesses or agencies;" "treated unfairly at work or school;" "denied or given lower quality health care;" and "physically attacked or injured;" these questions were modeled after previous research by Williams, Yu, Jackson, and Anderson (1997). Participants were also asked if they agree that NYC is tolerant of gays and bisexuals; responses included "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree"; this question was developed by the CDC.

Oral mucosal transudate was collected and tested for HIV antibodies using the OraQuick Advance oral specimen collection device (OraSure Technologies, Bethlehem, PA). If the test was positive, participants were asked to provide oral mucosal transudate specimens for confirmation using OraSure HIV-1 Western Blot testing kits (OraSure Technologies,

Bethlehem, PA), and to return in 2 weeks for their confirmatory test results. Participants were given the option to only provide a specimen for the HIV confirmatory test if they did not want to take the rapid test. Subjects were compensated \$20 for completing the survey and an additional \$10 for taking an HIV test.

### Statistical Analysis

Means and standard deviations (for normal continuous data); medians and interquartile ranges (IQR) (for nonnormal continuous data); and the frequencies and percentages for each level of categorical variables were calculated. Associations between each type of gay-related discrimination experienced in the past 12 months and sociodemographic and HIV-related behavioral variables were examined through the estimation of prevalence ratios (PRs) and 95% confidence intervals (CIs) using log-binomial regression models. Multivariate models were created for each type of gay-related discrimination. Variables significantly ( $p < .1$ ) associated with the type of discrimination in bivariate analyses were considered for inclusion in the multivariate regression model. Variables were entered and eliminated from the model in a stepwise manner with  $p < .1$  for entry and  $p < .05$  for retention. The responses to the question about NYC's tolerance of gays and bisexuals were recategorized (agree/strongly agree, disagree/strongly disagree, neither agree nor disagree) and the differences in responses were compared by sociodemographic variables using chi-squared tests; those variables, which were significantly ( $p < .05$ ) associated with the perception of NYC's tolerance of gays and bisexuals, were examined for correlation using Pearson correlation coefficients. Analyses were conducted using SAS 9.2 (Cary, NC, USA).

### Ethics

All study procedures involving human subjects were approved by the New York City Department of Health and Mental Hygiene (DOHMH) and John Jay College of Criminal Justice Institutional Review Boards.

## Results

### Sample Recruitment

Of 2,597 men who were enumerated when entering the sampled venues, 1,503 (57.9%) were approached and 557 (37.1%) of those approached were screened for eligibility. Of those screened, 536 (96.2%) were eligible and interviewed. Fifteen who did not have sex with men in the last 12 months (2.8%) and 11 that lived in the metropolitan statistical area, but were not NYC residents (2.1%), were excluded from the analysis. Of these 510 NYC sexually active MSM, one (0.2%) participant did not respond to the questions about discrimination and was eliminated from the analysis. The total sample size for the analysis was 509 participants.

### Participant Characteristics

The study sample demographics are reported in Table 1. Participants were recruited from bars ( $n = 313$ , 61.5%), parks ( $n = 84$ , 16.5%), street locations ( $n = 57$ , 11.2%), gay pride or similar events ( $n = 26$ , 5.1%), dance clubs ( $n = 21$ , 4.1%), and cafes and restaurants ( $n = 8$ , 1.6%). The median age of the study population was 29 years (IQR = 23, 40 years). There

were 200 (39.4%) Latino, 147 (29.0%) White, 118 (23.3%) Black, and 42 (8.3%) other race participants. Most were born in the United States or Puerto Rico ( $n = 414$ , 81.3%). One-quarter ( $n = 132$ , 25.9%) had completed college and 199 (39.3%) reported an income less than \$20,000 per year. Most study participants reported their sexual identity as “homosexual or gay” ( $n = 399$ , 78.4%), 99 (19.4%) “bisexual,” and 11 (2.2%) “heterosexual or straight.” Most reported disclosing their same-sex behavior or attraction to others ( $n = 468$ , 91.9%); including gay, lesbian, and bisexual friends ( $n = 463$ , 91.0%); friends who are not gay, lesbian, or bisexual ( $n = 432$ , 84.9%); family members ( $n = 425$ , 83.5%); and health care providers ( $n = 388$ , 76.2%).

The summary of behavioral HIV risk variables are reported in Table 2. In the past 12 months, 263 (51.7%) reported anal intercourse (AI) without a condom with a male partner, 135 (26.5%) reported AI without a condom with a casual male partner, and 261 (51.3%) had more than 3 sex partners. One-third ( $n = 163$ , 32.0%) reported AI without a condom with their last male sex partner. In the past 12 months, 171 (33.6%) reported using drugs, and 130 (25.5%) had more than 5 drinks in one sitting at least weekly. There were 474 (93.1%) participants who had positive or negative HIV test results and of these 91 (19.2%) were HIV positive.

### Gay-Related Discrimination Experienced in the Past 12 Months

Over half ( $n = 271$ , 53.2%) of all study participants reported having at least one of the five gay-related discrimination experiences in the past 12 months. Reported discrimination included: 229 (45.0%) had been called names or insulted; 120 (23.6%) received poorer services than other people in restaurants, stores, other businesses or agencies; 112 (22.0%) were treated unfairly at work or school; 34 (6.7%) were denied or given lower quality health care; and 77 (15.1%) were physically attacked or injured.

The frequency and PR for having experienced instances of gay-related discrimination by demographic variables are displayed in Table 1. Those who were called names or insulted were more likely to be younger than 30 years of age, identity as gay, told others they are attracted to and/or have sex with men, and were recruited at “other” venues (not bars or parks; compared with bars); and moderately more likely to have an income <\$20,000. Those who reported receiving poorer business services were more likely to be younger than 30 years of age and moderately more likely to have been born outside of the United States and not have completed college. Those who reported being treated unfairly at work or school were more likely to be younger than 30 years of age, identify as gay, and were recruited at “other” venues (not bars or parks; compared with bars); and moderately more likely to be Latino (compared with White). Those who reported having been denied or given lower quality health care were more likely to report “other” race (compared with White). Those who reported being physically attacked or injured were more likely to be Latino (compared with White), not have completed college, and recruited in parks (compared with bars); and moderately more likely to have an income <\$20,000.

The frequency and PR of having experienced instances of gay-related discrimination by behavioral variables are displayed in Table 2. Those who reported being called names or insulted were moderately more likely to have >3 male sex partners in the past 12 months.

Those who reported receiving poorer business services were moderately less likely to report past 12 month drug use. Those who reported being treated unfairly at work or school were less likely to report past 12 month drug use and moderately more likely to have anal intercourse without a condom with a man in the past 12 months. Those who reported being denied or given lower quality health care were less likely to report past 12 month drug use and more likely to be HIV positive. Those who reported being physically attacked or injured were less likely to report past 12 month drug use. Associations between past 12 month drug use and reported instances of gay-related discrimination experienced were further examined by type of drug. Past 12 month use of poppers (amyl nitrate; PR = 0.6; 95% CI = 0.3, 1.0) was inversely associated with receiving poorer business services and past 12 month use of poppers (PR = 0.4; 95% CI = 0.2, 0.8) and powdered cocaine (PR = 0.5; 95% CI = 0.9) were inversely associated with being treated unfairly at work or school.

In multivariate analysis, age <30 (aPR = 1.3; 95% CI = 1.1, 1.6) and identifies as gay (aPR = 1.6; 95% CI = 1.2, 2.2) were independently associated with reports of having been called names or insulted; age <30 (aPR = 1.5; 95% CI = 1.1, 2.1) was the only variable retained associated with reports of having received poorer business services; gay sexual identity (aPR = 2.1; 95% CI = 1.2, 3.5), AI without a condom with a casual male partner (aPR = 1.5; 95% CI = 1.1, 2.1), and drug use in the past 12 months (aPR = 0.5; 95% CI = 0.3, 0.8) were independently associated with reports of having been treated unfairly at work or school; drug use in the past 12 months (aPR = 0.3; 95% CI = 0.1, 0.7) and HIV positive status (aPR = 2.9; 95% CI = 1.5, 5.6) were independently associated with reports of having been denied or given lower quality health care; and not having completed college (aPR = 1.9; 95% CI = 1.1, 3.4) was the only variable retained associated with reports of having been physically attacked or injured.

### Perception of Community Tolerance of Gays and Bisexuals

The differences in demographics by whether participants agreed or disagreed with the statement “most people in New York City are tolerant of gays and bisexuals” are reported in Table 3; most participants agreed with this statement ( $n = 347$ , 68.2%), although 75 (14.7%) disagreed, and 87 (17.1%) neither agreed nor disagreed. Those who were of White race ( $\chi^2[2, N = 507] = 18.9, p < .0001$ ), had completed college ( $\chi^2[2, N = 509] = 22.8, p < .0001$ ), had an annual income  $\leq \$20,000$  ( $\chi^2[2, N = 506], p = .007$ ), identified as gay ( $\chi^2[2, N = 509], p = .04$ ), and were recruited in a bar ( $\chi^2[4, N = 509] = 29.9, p < .0001$ ) were more likely to perceive NYC to be a place that is tolerant of gays and bisexuals. The variables for race, education, income, and recruitment venue were highly correlated with each other ( $p < .0001$  for all correlations) and gay identity was significantly correlated with education ( $\rho = 0.20, p < .0001$ ), income ( $\rho = 0.12, p = .007$ ), and race ( $\rho = 0.10, p = .02$ ) and not correlated with recruitment venue ( $\rho = 0.01, p = .74$ ).

### Discussion

More than half of all study participants reported experiencing gay-related discrimination in the past 12 months. The most common type of discrimination was having been called names or insulted. Having received poorer business services and having been treated unfairly at

work or school were both less common, with less than one-quarter reporting having experienced these types of discrimination in the past 12 months. Although smaller percentages of participants reported being denied or given lower quality health care and having been physically attacked or injured, these are acts of discrimination which have a direct impact on the health of the individual.

The association between HIV positive status and being denied or given lower quality health care is especially troubling. In Los Angeles, perceived HIV-related stigma was reported to be associated with low access to care among low-income HIV positive individuals (Kinsler, Wong, Sayles, Davis, & Cunningham, 2007). Mayer et al. (2008) have cited a lack of medical care tailored to lesbian, gay, bisexual, and transgender (LGBT) issues as a potential barrier for health care access among LGBT. While evidence suggests that discrimination and homophobic attitudes among health care providers have decreased over time (Smith & Mathews, 2007), the results of the current study suggest that anti-gay discrimination may be practiced by some health care providers. Health care providers should be trained to provide a nonthreatening environment for MSM to discuss their sexual health (Wolitski & Fenton, 2011).

There were few significant associations between having experienced gay-related discrimination in the past 12 months and behavioral HIV risk variables. AI without a condom with a casual partner in the past 12 months was associated with having been treated unfairly at work or school, but not with any other type of gay-related discrimination. A multisite study of Black and Latino MSM conducted in 2005–2006 determined that experiencing homophobia in the past 12 months was associated with AI without a condom with a serodiscordant or unknown HIV status partner (Ayala et al., 2012). Further research is needed to better understand the relationship between discrimination and HIV risk behaviors.

Unexpectedly, past 12 month drug use was inversely associated with having experienced most types of gay-related discrimination. This finding is contrary to that from a study of lesbians, gays, and bisexuals in which those who had substance use disorders were more likely to have experienced discrimination in the past year (McCabe, Bostwick, Hughes, West, & Boyd, 2010). However, a multi-site study of MSM identified an inverse relationship between having been harassed for being gay prior to the age of 16 and alcohol abuse (Stall et al., 2001). Drug users have also reported experiencing discrimination associated with their drug use (Ahern, Stuber, & Galea, 2007). It is possible that drug using MSM may attribute instances of discrimination to their drug use instead of to their attraction to men. The association between drug use and discrimination may also have been confounded by an unmeasured variable; qualitative research studies should more deeply explore this relationship.

Gay-related violence, although not directly associated with HIV risk behaviors, is of serious concern. In bivariate analysis, Latino MSM were more likely to report being physically attacked or injured compared with White MSM and those who were recruited at parks were also more likely to report having been physically attacked or injured. In the multivariate model, however, not having completed college was the only variable associated with having been physically attacked or injured. Those who have not completed college may be more

likely to live in neighborhoods with low levels of educated adults. Less education has previously been determined to be associated with homophobia and more negative attitudes toward gays and lesbians (Lambert, Ventura, Hall, & Cluse-Tolar, 2006; Walch, Orlosky, Sinkkanen, & Stevens, 2010).

The difference in the perception of community tolerance of gays and bisexuals illustrates that the gay experience in NYC varies by demographic factors related to race and socioeconomic status (SES). Previous research indicates that neighborhood characteristics may influence social norms (Frye et al., 2010). This study suggests that efforts should be strengthened to reduce homophobia in non-White lower SES neighborhoods (Wolitski & Fenton, 2011). Challenging the legitimacy of gay-related discrimination and the notion of heterosexual privilege among heterosexuals could decrease the frequency of gay-related harassment (Bahns & Branscombe, 2010).

This study was subject to several limitations. Experiences of gay-related discrimination were based on self-reported perception and not a direct measure of gay-related discrimination; it is possible that participants were discriminated against for other reasons, but attributed discrimination events to their same sex attraction. The current study design is unable to determine the validity of self-reported discrimination. In order to determine whether a participant was discriminated against because they were MSM or because of some other factor, a comparison of general discrimination would need to be made between MSM and non-MSM. Data were not collected on the frequency or severity of discrimination events and were limited to experiences in the past 12 months. The culmination of a lifetime of experiencing discrimination may have more of an impact on behaviors compared with recent experiences of discrimination. Raymond, Chen, Stall, and McFarland (2011) reported that discrimination experienced during adolescence was associated with HIV negative status among adult MSM, but Friedman, Marshal, Stall, Cheong, and Wright (2008) reported no significant association between experiencing gay-related harassment as an adolescent and adult HIV status. The relationship between discrimination and HIV risk behaviors may be mediated by other factors, such as depression, anxiety, social support, self-esteem, racism, financial stability, and attachment to the gay community (Ayala et al., 2012; Choi, Paul, Ayala, Boylan, & Gregorich, 2013; Crocker & Major, 1989; Gamarel, Reisner, Parsons, & Golub, 2012), but data were not collected on these variables. In addition, fear of discrimination was not measured. The expectation of discrimination, even if not experienced, may influence risk and preventive behaviors. Also, the limited sample size may have restricted the power to detect differences in study variables and may have precluded the inclusion of relevant variables in the multivariate models. The cross-sectional nature of this study precludes the determination of temporal relationships. The study questionnaire elicited sensitive information regarding sexual behavior and participants may not have felt comfortable disclosing this information to study staff interviewers. Participants were selected through a quasi-probability sample of designated NYC MSM venues. Efforts were made to include a diverse selection of MSM venues in the sampling universe, however, MSM that do not attend these venues would not have had the opportunity to participate in this study and those who participated may differ from those who did not. This study's findings may not be generalizable to all MSM in NYC or other MSM populations.

## Conclusion

The current study determined that approximately half of study participants reported having experienced gay-related discrimination in the past 12 months. Despite NYC's long history as a hub for gay culture (Chauncey, 1994), there are still subpopulations of mostly non-White, lower SES MSM who do not feel that NYC is tolerant of gays and bisexuals. This study suggests that greater efforts are needed to reduce gay-related discrimination in affected communities. Notably, the prevalence of those reporting having been physically attacked or injured in the past 12 months is alarming and indicates that steps should be taken to prevent gay-related violence in NYC. The association between HIV positive status and having been denied or given lower quality health care suggests a need for culturally competent health care providers for this population that is at high risk for HIV infection. Future research is needed to better understand the context and extent of gay-related discrimination in NYC, particularly with regard to the relationship between HIV status and health care access.

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**Table 1.** Gay-Related Discrimination Experienced in the Past 12 Months by Demographic Variables Among MSM in NYC, 2011 (N = 509).

	N	%	Called names or insulted		Received poorer business services		Treated unfairly at work or school		Denied or given lower quality health care		Physically attacked or injured	
			r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)
Total	509	100.0%	45.0%	—	23.6%	—	22.0%	—	6.7%	—	15.1%	—
Age												
18–29	267	52.5%	51.7%	1.4 (1.1, 1.7)**	28.1%	1.5 (1.1, 2.1)**	25.5%	1.4 (1.0, 2.0)**	6.7%	1.0 (0.5, 2.0)	15.4%	1.0 (0.7, 1.6)
30+	242	47.5%	37.6%	1.0	18.6%	1.0	18.2%	1.0	6.6%	1.0	14.9%	1.0
Race												
White	147	29.0%	41.5%	1.0	21.1%	1.0	18.4%	1.0	3.4%	1.0	10.2%	1.0
Black	118	23.3%	48.3%	1.1 (0.8, 1.4)	22.9%	1.1 (0.7, 1.7)	17.8%	1.0 (0.6, 1.6)	6.8%	2.0 (0.7, 5.9)	15.3%	1.5 (0.8, 2.8)
Latino	200	39.4%	41.5%	0.9 (0.8, 1.2)	24.0%	1.1 (0.8, 1.7)	26.0%	1.4 (0.9, 2.1)*	6.5%	1.9 (0.7, 5.2)	19.0%	1.9 (1.1, 3.3)**
Other	42	8.3%	47.6%	1.0 (0.7, 1.5)	31.0%	1.5 (0.8, 2.5)	26.2%	1.4 (0.8, 2.6)	19.0%	5.6 (1.9, 16.2)**	14.3%	1.4 (0.6, 3.4)
Country of origin												
United States or Puerto Rico	414	81.3%	45.2%	1.0	25.4%	1.0	22.7%	1.0	7.2%	1.0	15.5%	1.0
Foreign	95	18.7%	44.2%	0.9 (0.8, 1.3)	15.8%	0.6 (0.4, 1.0)*	18.9%	0.8 (0.5, 1.3)	4.2%	0.6 (0.2, 1.6)	13.7%	0.9 (0.5, 1.5)
Highest level of education completed												
College	132	25.9%	42.4%	0.9 (0.7, 1.2)	17.4%	0.7 (0.4, 1.0)*	19.7%	0.9 (0.6, 1.3)	3.8%	0.5 (0.2, 1.2)	9.1%	0.5 (0.3, 0.9)*
No college	377	74.1%	45.9%	1.0	25.7%	1.0	22.8%	1.0	7.7%	1.0	17.2%	1.0
Annual income												
<\$20,000	199	39.3%	50.3%	1.2 (1.0, 1.4)*	22.1%	0.9 (0.6, 1.2)	25.1%	1.2 (0.9, 1.7)	8.0%	1.4 (0.7, 2.6)	18.6%	1.4 (0.9, 2.2)*
\$20,000	153	60.7%	42.0%	1.0	24.8%	1.0	20.2%	1.0	5.9%	1.0	13.0%	1.0
Sexual identity												
Gay	399	78.4%	49.4%	1.7 (1.2, 2.3)**	25.1%	1.4 (0.9, 2.1)	24.8%	2.1 (1.2, 3.6)**	7.3%	1.6 (0.6, 4.0)	14.8%	0.9 (0.6, 1.5)
Bisexual/heterosexual	110	21.6%	29.1%	1.0	18.2%	1.0	11.8%	1.0	4.5%	1.0	16.4%	1.0

Told others attracted to and/or has sex with men

	N	%	Called names or insulted		Received poorer business services		Treated unfairly at work or school		Denied or given lower quality health care		Physically attacked or injured	
			r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)
Yes	468	91.9%	47.2%	2.4 (1.3, 4.5)**	24.4%	1.7 (0.8, 3.5)	22.9%	1.9 (0.8, 4.3)	6.6%	0.9 (0.3, 2.8)	15.6%	1.6 (0.6, 4.2)
No	41	8.1%	19.5%	1.0	14.6%	1.0	12.2%	1.0	7.3%	1.0	9.8%	1.0
Recruitment venue												
Bar	313	61.5%	41.2%	1.0	21.4%	1.0	19.5%	1.0	5.8%	1.0	12.1%	1.0
Park	84	16.5%	48.8%	1.2 (0.9, 1.5)	27.4%	1.3 (0.9, 1.9)	22.6%	1.2 (0.7, 1.8)	6.0%	1.0 (0.4, 2.7)	23.8%	2.0 (1.2, 3.2)**
Other <sup>a</sup>	112	22.0%	52.7%	1.3 (1.0, 1.6)**	26.8%	1.3 (0.9, 1.8)	28.6%	1.5 (1.0, 2.1)**	9.8%	1.7 (0.8, 3.5)	17.0%	1.4 (0.8, 2.3)

Note. MSM = men who have sex with men; NYC = New York City; r% = row percentage; PR = prevalence ratio; CI = confidence interval.

<sup>a</sup>Other recruitment venues include cafes or restaurants, dance clubs, gay pride or similar events, and street locations.

\*  $p < .1$ .

\*\*  $p < .05$ .

**Table 2.** Gay-Related Discrimination Experienced in the Past 12 Months by HIV Risk Behavior Variables Among MSM in NYC, 2011 (N = 509).

	N	%	Called names or insulted		Received poorer business services		Treated unfairly at work or school		Denied or given lower quality health care		Physically attacked or injured	
			r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)	r%	PR (95% CI)
Total	509	100.0%	45.0%	—	23.6%	—	22.0%	—	6.7%	—	15.1%	—
Sexual behavior												
Anal intercourse without a condom with a man (past 12 months)												
Yes	263	51.7%	44.5%	1.0 (0.8, 1.2)	24.0%	1.0 (0.8, 1.4)	24.3%	1.2 (0.9, 1.7)	6.1%	0.8 (0.4, 1.6)	16.0%	1.1 (0.7, 1.7)
No	246	48.3%	45.5%	1.0	23.2%	1.0	19.5%	1.0	7.3%	1.0	14.2%	1.0
Anal intercourse without a condom with a casual male partner (past 12 months)												
Yes	135	26.5%	48.9%	1.1 (0.9, 1.4)	25.9%	1.1 (0.8, 1.6)	27.4%	1.4 (1.0, 1.9)*	5.9%	0.9 (0.4, 1.8)	18.5%	1.3 (0.9, 2.1)
No	374	73.5%	43.6%	1.0	22.7%	1.0	20.1%	1.0	7.0%	1.0	13.9%	1.0
Anal intercourse without a condom with a man (last sex)												
Yes	163	32.0%	41.7%	0.9 (0.7, 1.1)	25.8%	1.1 (0.8, 1.6)	24.5%	1.2 (0.8, 1.7)	8.0%	1.3 (0.7, 2.6)	17.8%	1.3 (0.8, 2.0)
No	346	68.0%	46.5%	1.0	22.5%	1.0	20.8%	1.0	6.1%	1.0	13.9%	1.0
>3 male sex partners (past 12 months)												
Yes	261	51.3%	48.7%	1.2 (1.0, 1.4)*	24.5%	1.1 (0.8, 1.5)	19.9%	0.8 (0.6, 1.1)	5.7%	0.8 (0.4, 1.4)	16.9%	1.3 (0.8, 1.9)
No	248	48.7%	41.1%	1.0	22.6%	1.0	24.2%	1.0	7.7%	1.0	13.3%	1.0
Drug and alcohol use												
Drug use (excludes marijuana) (past 12 months)												
Yes	171	33.6%	39.8%	0.8 (0.7, 1.0)	18.7%	0.7 (0.5, 1.0)*	14.0%	0.5 (0.4, 0.8)**	2.3%	0.3 (0.1, 0.7)**	10.5%	0.6 (0.4, 1.0)**
No	338	66.4%	47.6%	1.0	26.0%	1.0	26.0%	1.0	8.9%	1.0	17.5%	1.0
At least weekly binge (past 12 months)												
Yes	130	25.5%	42.3%	0.9 (0.7, 1.2)	20.0%	0.8 (0.5, 1.2)	19.2%	0.8 (0.6, 1.2)	5.4%	0.8 (0.3, 1.7)	11.5%	0.7 (0.4, 1.2)
No	379	74.5%	45.9%	1.0	24.8%	1.0	23.0%	1.0	7.1%	1.0	16.4%	1.0
HIV status												
Positive	91	19.2%	41.8%	0.9 (0.7, 1.2)	27.5%	1.2 (0.8, 1.8)	23.1%	1.1 (0.7, 1.6)	14.3%	2.7 (1.4, 5.3)**	16.5%	1.1 (0.6, 1.9)
Negative	383	80.8%	46.5%	1.0	23.5%	1.0	21.7%	1.0	5.2%	1.0	14.9%	1.0

Note. MSM = men who have sex with men; NYC = New York City; r% = row percentage; PR = prevalence ratio; CI = confidence interval.

\*  $P < .1$ .

$p < .05$   
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**Table 3.** Perception of Community Tolerance of Gays and Bisexuals Among MSM in NYC, 2011 (N = 509).

	Agree/strongly agree, n (c%)	Disagree/strongly disagree, n (c%)	Neither agree nor disagree, n (c%)	p Value
Total	347 (68.2%)	75 (14.7%)	87 (17.1%)	
Age				.06
18-29	171 (64.0%)	44 (16.5%)	52 (19.5%)	
30	176 (72.7%)	31 (12.8%)	35 (14.5%)	
Race/ethnicity				<.0001
White	121 (82.3%)	12 (8.2%)	14 (9.5%)	
Non-White	225 (62.5%)	62 (17.2%)	73 (20.3%)	
Country of origin				.78
United States or Puerto Rico	281 (67.9%)	60 (14.5%)	73 (17.6%)	
Foreign	66 (69.5%)	15 (15.8%)	14 (14.7%)	
Highest level of education completed				<.0001
College	112 (84.8%)	11 (8.3%)	9 (6.8%)	
No college	235 (62.3%)	76 (20.2%)	66 (17.5%)	
Annual income				.007
<\$20,000	122 (61.3%)	41 (20.6%)	36 (18.1%)	
\$20,000	223 (72.6%)	34 (11.1%)	50 (16.3%)	
Sexual identity				.04
Gay	275 (68.9%)	51 (12.8%)	73 (18.3%)	
Bisexual/heterosexual	72 (65.5%)	24 (21.8%)	14 (12.7%)	
Told others attracted to and/or has sex with men				.19
Yes	322 (68.8%)	65 (13.9%)	81 (17.3%)	
No	25 (61.0%)	10 (25.4%)	6 (14.6%)	
Recruitment venue				<.0001
Bar	240 (76.7%)	29 (9.3%)	44 (14.1%)	
Park	44 (52.4%)	21 (25.0%)	19 (22.6%)	
Other	63 (56.3%)	25 (22.3%)	24 (21.4%)	

Note. MSM = men who have sex with men; NYC = New York City; c% = column percentage.